

Your free
guide

Eye Health Mythbuster

Questions about
your eye health?

Fight for Sight sorts
FACT from **FICTION**.



Welcome

My research aims to discover the causes of shortsightedness (myopia), which affects approximately 1 in 3 people in the United Kingdom and increases the risk of several serious eye disorders.

I'm grateful to have received funding from Fight for Sight, a charity with a mission to "Save Sight. Change Lives." It funds breakthrough science and innovative projects that aim to improve the lives of people who are blind or vision impaired.

As individuals, there are things we can do to look after our eye health, especially given that some 90% of vision loss is preventable or treatableⁱ.

Our FREE Mythbusters sort fact from fiction and answer some commonly asked questions.

Prof. Jeremy Guggenheim



Save Sight. Change Lives.



“When someone receives a diagnosis of vision loss, they face two profound questions. Can this be stopped? How will I live my life?”

Fight for Sight funds the brilliant minds and bright ideas putting change in sight for everyone impacted by vision loss.”

Keith Valentine
CEO Fight For Sight

Eye health Mythbuster

Some 90% of vision loss can be prevented or treated, according to the IAPB Vision Atlas and the Lancet Global Health Commission on Global Eye Health.

That's why we've put together these mythbusting tips.

01 Vaping doesn't damage your eyes

The effect of smoking on sight loss is widely known. It can increase your risk of age-related macular degeneration (AMD) by up to four timesⁱⁱ and your risk of cataracts by up to three timesⁱⁱⁱ.

Vaping was first introduced as an alternative to smoking, but in recent years, it's become increasingly popular among both ex-smokers and non-ex-smokers alike^{iv}. Given its growing popularity, the long-term effects of vaping require further research and education on the health risks associated with it, and vision health is not an exception.

Although current research is limited, we do know that vaping can increase your risk of dry eye disease^v, because of the effects it can have on the surface of the eye.

Vaping can also induce temporary nystagmus, a condition associated with significant vision impairment^{vi}.

While quitting smoking is key for maintaining good eye health, it's essential to be aware there are still risks associated with vaping, and there may be further risks we're unaware of at this time.



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02

Wearing glasses weakens your eyes

You may need to wear glasses or contact lenses if you have a refractive error. The term refers to various conditions, including short-sighted (myopia), long-sighted (hyperopia), astigmatism (where your eyeball is unevenly curved), and presbyopia (where close objects become blurry as you get older).

Refractive errors occur when light doesn't correctly focus when it hits the retina, the light-sensitive layer at the back of the eye.

Refractive errors are common, affecting millions of children and adults in the UK. A survey by [UK Biobank](#) found that 54% of participants aged 40-69 had a refractive error.

Approximately 1 in 3 people in the United Kingdom are short-sighted^{vii}. Wearing glasses or contact lenses helps to correct blurred vision. They may be required all the time or just to wear while carrying out specific tasks, like reading, using a computer screen and driving.

No scientific evidence suggests that wearing glasses or contact lenses weakens the eyes, and they may be beneficial even if your correction is small, for example, by reducing headaches.



5

03

My vision is 20/20. I don't need an eye test

You may feel your eyesight hasn't changed. However, everyone should have a regular eye test every two years. Regular eye tests can identify or limit the damage caused by certain eye conditions – for example, identifying glaucoma can reduce the risk of irreversible vision loss.

Opticians also offer additional tests, including optical coherence tomography (OCT) tests. An OCT test generates an image of the back of your eye – the retina. It can identify early signs of eye disease, including age-related macular degeneration, glaucoma and diabetes-related retinopathy.

Eye scans can also spot other illnesses. It can reveal early symptoms of diabetes, brain tumours, heart disease, high blood pressure, MS, and other conditions.

If you have a parent or sibling with glaucoma, then the advice is to have an eye test once a year (the NHS will cover the fee for the test). Regular eye tests are also advisable for people who have diabetes to spot early signs of diabetic retinopathy.

2.5m

people in the UK have vision loss



6

Latest science:
Genetic testing for
myopia

Research funded by Fight for Sight is making it easier to identify when children have a high risk of severe short-sightedness in later life.

Thanks to research funded by Fight for Sight and Health and Care Research Wales, it will soon be easier to identify children at a high risk of short-sightedness or myopia in later life.

A research team led by scientists at Cardiff University has developed a genetic test that will identify an increased risk of myopia. Myopia typically blurs distance vision and develops in childhood, affecting about one in three people in the UK.

Professor Jeremy Guggenheim, who led the study, says the new genetic test holds promise for clinicians seeking to identify children who would benefit most from intensive treatment to delay the onset of shortsightedness.

Early detection is vital because treatments can delay the onset of shortsightedness or slow its rate of progression during childhood, reducing the chances of myopic macular degeneration.

The Cardiff-led research involved 492,000 participants worldwide.



“This international effort by researchers from the UK, Europe, Japan, Australia, China and the United States has demonstrated the potential of a genetic test for short-sightedness and set a clear path towards bringing the test to the clinic,”

Professor Guggenheim

A limitation, however, is that the accuracy of the test depends on the patient's ethnic background—this needs to be overcome before the test can be used in the clinic.

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04

People with vision loss can't work

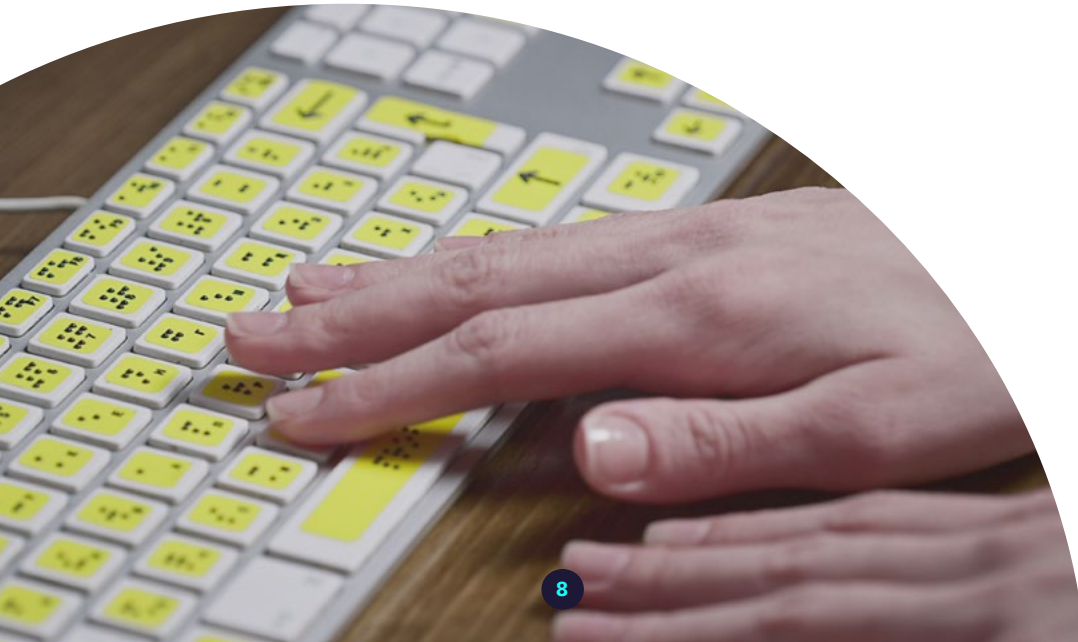
Only a quarter of blind adults of working age in the UK are in employment^{viii}. Plus, over 300,000 blind and partially sighted people are excluded from the workplace^{ix}.

However, people with vision loss can work, and there's plenty of evidence to show the benefits they bring to a diverse workforce.

In 2021, Fight for Sight funded a project called See My Skills, where we commissioned research from the [University of Birmingham's Department of Disability Inclusion and Special Needs](#) into which interventions best improve access to the workplace for blind and visually impaired people.

Simple factors like having the right technology and support and flexible working hours so people can avoid rush hour or attend medical appointments can all improve access to the workplace for people with vision impairments. It's important to reflect on how your workplace can implement simple changes to support those with vision impairment.

Access to personalised support, rather than one-size-fits-all policies, was overwhelmingly seen as an enabler to successful employment.



05

I'm registered blind. I'm worried my child will inherit my condition

Certain eye conditions are inherited, so if you have an inherited condition, you may want to understand your child's risks.

The risk will vary by specific condition. What's more, the same condition can be passed down differently in different families.

For example, if you have retinitis pigmentosa (RP), this can be linked to different genes, meaning it can be passed down in different ways. X-linked RP is passed down via an X chromosome, meaning it typically passes from mother to son only. Daughters generally are only carriers of the condition – meaning she could, in turn, pass it to her son, who may have the condition.

But other forms of RP can be passed down regardless of which chromosomes you have, so it's important to know what type of the condition runs in your family. You can then go through genetic testing if you are at risk.

Sight loss conditions that aren't considered to be inherited conditions can still have a genetic component. For example, glaucoma is thought to be caused by both genetic and environmental factors^x. If you have a condition like glaucoma, your child needs to get their eyes tested regularly and be aware of what lifestyle changes may reduce your child's risk of developing the condition.



06**Vision loss isn't preventable**

While some cases of vision loss cannot be prevented or treated, it's estimated that more than a million people in the UK are living with avoidable sight loss^{xi}. This number could be bigger because it's currently unclear how treatable and preventable some eye conditions are.

However, vision research is extremely underfunded, with only 1.2 percent of public grant funding for medical research spent on eye conditions.

What's more, only 3 percent of spending in the sight loss charity sector is spent on research.

With the number of people living with vision loss set to jump to 3.5 million by 2050, funding eye research is imperative to prevent or treat causes of sight loss. That's why Fight for Sight has committed to spending £20 million on vision research over the next 5 years.

07**It's okay to put my contacts in with wet hands or shower with them still in**

It's very important to wash AND dry your hands before putting your contact lenses in. It's also important not to swim, bathe or shower with your lenses in.

This is because bacterial diseases related to contact lens wearing, such as acanthamoeba keratitis (AK), are caused by bacteria in water, which are harmless when drinking but can cause sight-threatening disease if they get into your eye, which can happen when wearing contacts to swim.

If you must wear contacts to swim, you need to wear properly sealed goggles that keep water from getting in.

It's worth noting that people who wear reusable contact lenses are nearly four times more likely to develop a sight-threatening eye infection than those wearing daily disposables. So, switching to daily disposable contact lenses can reduce your risk, providing they are used according to the manufacturer's instructions.

08**I don't need to wear sunglasses when it's cloudy**

Although you may not feel the need to wear sunglasses when it's cloudy, a significant amount of UV rays can still get through. Prolonged UV radiation exposure can play a role in conditions like cataracts and macular degeneration, so wearing glasses with UV protection is always advisable.

You can tell whether sunglasses offer UV protection by checking if the frame features the CE or UV400 mark. Remember that the darkness of your sunglasses has nothing to do with UV protection,

so it's important to read the description and look for these labels to protect against UV damage.

In addition, cloudy days can lead to increased glare and reflections off surfaces like water or snow. This is because the clouds can create diffuse light. You will need polarised sunglasses to protect against the temporary vision impairment caused by glare but note that polarized sunglasses may not be appropriate for driving.





“I felt the psychological pressure to ‘will’ myself better, but the illness didn’t have a linear path. The path was complex and uncertain, and that was a lot to cope with.”

Jim Pomeroy

Read Jim’s experience of living with acanthamoeba keratitis and of running the marathon for us.

www.fightforsight.org.uk

09

Too much screen time can cause blindness

There is no scientific evidence that using screens excessively increases your risk of vision loss, for example, by increasing your risk of age-related macular degeneration (AMD). While it’s important to focus your eyes away from your screen regularly, this is to reduce eye strain, which is temporary and does not cause you to go blind.

Children may be an exception to this rule, since they may be at greater risk of short-sightedness (myopia) if they spend too long viewing screens and smartphones^{xii}.

There is no evidence that exposure to blue light affects your long-term eye health. While being known for being emitted by smartphones and TV screens, blue light is also emitted by the sun, much more powerfully than by screens.

We do know that artificial blue light can affect your sleep, so for this reason, it’s important to think about reducing your screen time before going to bed.

There is also no evidence that lenses designed to block blue light have a real benefit^{xiii}, so be wary of glasses that promise to reduce the effects of blue light on sleep.



10

Carrots will improve my eyesight

It's a myth that eating carrots helps you see in the dark. However, carrots contain vitamins that can help promote overall eye health. That includes beta-carotene, which the body converts to vitamin A, promoting eye health.

Ensure your diet contains nutrients such as omega-3 fatty acids, zinc, and vitamins C and E. Recommended foods include green leafy vegetables, oily fish such as salmon and mackerel, avocados, eggs, and citrus fruits.

Studies also show that eating just one portion of fish a week may reduce your risk of developing age-related macular degeneration

(AMD), the UK's leading cause of blindness. Good general health is also good for your eye health.

An estimated 6.4 million people are at an increased risk of type 2 diabetes in the UK. Both type 1 and type 2 diabetes carry a risk of Diabetic Retinopathy.

Research has consistently shown that for some people, combined lifestyle interventions—including diet, physical activity, and sustained weight loss—are effective in reducing the risk of type 2 diabetes by about 50%. So, a healthy lifestyle is great for your eye health.



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We fund the brilliant minds and bright ideas putting change in sight for everyone impacted by vision loss.

To find out more, visit fightforsight.org.uk



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